POLICY ISSUES AND RECOMMENDATIONS FOR COLLABORATION

The program for the symposium, which was developed jointly by representatives from the United States and Japan (see Annex 1), was designed to serve as a framework for identifying earthquake policies and policy issues. The symposium was organized around the following four theme areas, each with formal presentations and a general policy discussion.

- Theme I: Earthquake Forecasting, Warning, and Hazard Zonation
- Theme II: Earthquake Risk Assessment and Loss Estimation
- Theme III: Earthquake Resistant Design, Construction, Rehabilitation, and Repair Standards
- Theme IV: Earthquake Preparation, Response, Recovery, and Mitigation

Below is a summary of the issues and recommendations proposed for bilateral policy and research collaboration that were discussed at the symposium. The issues and recommendations were developed by the United States to facilitate the policy discussions at the symposium.

Theme I: Earthquake Forecasting, Warning, and Hazard Zonation

An overview of (1) the social, technical, and policy issues associated with the provision and use of real-time or near real-time information to the gas and electric industry and the public sector; and (2) the construction and use of hazard maps in national building codes and seismic zonation.

Chair

- Dr. Gordon P. Eaton, Director, United States Geological Survey (USGS)

Speakers

- Dr. James J. Mori, Southern California Coordinator, USGS
- Dr. William U. Savage, Senior Seismologist, Pacific Gas and Electric Company
- Mr. Masahiro Yamamoto, Deputy Director, Administration Division, Seismological and Vocanological Department, Japanese Meteorological Agency
- Dr. Masakazu Ohtake, Professor of Tohoku University
- Dr. Yoshimori Honkura, Professor of Tokyo Institute of Technology
- Dr. E. V. Leyendecker, Research Civil Engineer, Golden, Colorado, USGS
- Dr. James F. Davis, California State Geologist, California Department of Conservation, Division of Mines and Geology
- Mr. Nobumasa Kawabata, Guest Researcher, Disaster Prevention and Information Center, Shizuoka Prefecture

Policy Issues

1. Are users comfortable with the completeness, accuracy, reliability, timeliness, and use of an earthquake forecast?

2. Are users comfortable with the completeness, accuracy, and usefulness of earthquake hazard zonation maps?

3. Are the confidence and know-how of users of real-time seismic systems and earthquake hazard zonation maps sufficient for applying them in long-term preparedness, response, recovery, and reconstruction programs and mitigation planning?

4. Who should pay for real-time seismic systems? Earthquake hazard zonation mapping?

Recommendations for Discussion

Quantifying Future Earthquake Potential

1. Expand the development of seismic systems for reliable, cost-effective real-time warning.

2. Improve the probabilistic forecasting of earthquakes.

3. Improve the prediction of "where" earthquakes will occur.

4. Test basic theories of the earthquake source.

5. Study the near source motions, geologic effects, and structural response to improve ground shaking hazard maps on all scales.

6. Improve the capability to identify and characterize blind thrust faults, soils that amplify ground motion, and sites having susceptibility and potential for liquefaction and landslides.

Reducing Earthquake Damage

1. Improve the application of real-time monitoring data.

2. Improve the use of probabilistic earthquake forecasting in the utility industry.

3. Improve ground shaking hazard maps as a means for improving performance-based design methods.